

Application Note #2508

ICS-48044-F

Part Description

The ICS-48044-F is a DB44-F to Screw terminal breakout board designed to be used with 'EXTERNAL DRIVER' DB44 connector on the Galil DMC-4000 series motion controller. The component is shown in Figure 1 below:

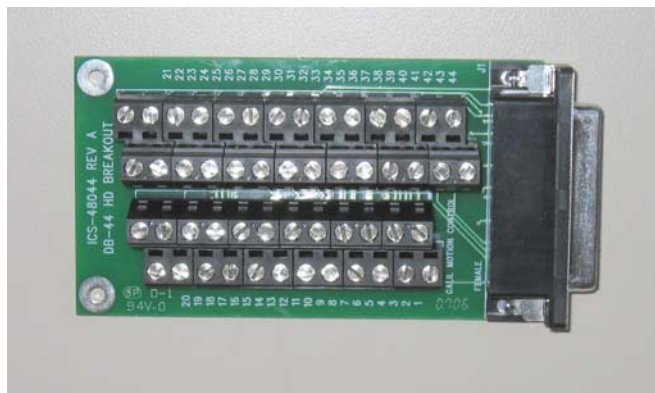


Figure 1: ICS-48044-F

Figure 2 shows installation (typical):



Figure 2: ICS installed on DMC-4000

Pinout

The pinout is based on the pinout as described on the silkscreen of the DMC-4000 and in the DMC-4000 User Manual:

ICM-42000 External Driver (A-D) 44 pin D-Sub Connector

| Pin | Label | Description | Pin | Label | Description | Pin | Label | Description |
|-----|-------|----------------------|-----|-------|----------------------|-----|-------|---------------------|
| 1 | RES | Reserved | 16 | STPA | PWM / Step A | 31 | STPB | PWM / Step B |
| 2 | STPC | PWM / Step C | 17 | RES | Reserved | 32 | RES | Reserved |
| 3 | RES | Reserved | 18 | STPD | PWM / Step D | 33 | GND | Digital Ground |
| 4 | RES | Reserved | 19 | DIRA | Sign / Direction A | 34 | DIRB | Sign / Direction B |
| 5 | DIRC | Sign / Direction C | 20 | RES | Reserved | 35 | RES | Reserved |
| 6 | RES | Reserved | 21 | DIRD | Sign / Direction D | 36 | GND | Digital Ground |
| 7 | AENA | Amplifier Enable A | 22 | AEC1 | Amp Enable Common 1 | 37 | AENB | Amplifier Enable B |
| 8 | AEND | Amplifier Enable D | 23 | AENC | Amplifier Enable C | 38 | AEC2 | Amp Enable Common 2 |
| 9 | N/C | No Connect | 24 | N/C | No Connect | 39 | GND | Digital Ground |
| 10 | -12V | -12V from Controller | 25 | +12V | +12V from Controller | 40 | MCMA | Motor Command A |
| 11 | MCMB | Motor Command B | 26 | RES | Reserved | 41 | RES | Reserved |
| 12 | RES | Reserved | 27 | MCMC | Motor Command C | 42 | MCMD | Motor Command D |
| 13 | N/C | No Connect | 28 | RES | Reserved | 43 | GND | Digital Ground |
| 14 | N/C | No Connect | 29 | N/C | No Connect | 44 | N/C | No Connect |
| 15 | +5V | +5V from Controller | 30 | N/C | No Connect | | | |

ICM-42000 External Driver (E-H) 44 pin D-Sub Connector

| Pin | Label | Description | Pin | Label | Description | Pin | Label | Description |
|-----|-------|----------------------|-----|-------|----------------------|-----|-------|---------------------|
| 1 | RES | Reserved | 16 | STPE | PWM / Step E | 31 | STPF | PWM / Step F |
| 2 | STPF | PWM / Step F | 17 | RES | Reserved | 32 | RES | Reserved |
| 3 | RES | Reserved | 18 | STPH | PWM / Step H | 33 | GND | Digital Ground |
| 4 | RES | Reserved | 19 | DIRE | Sign / Direction E | 34 | DIRF | Sign / Direction F |
| 5 | DIRF | Sign / Direction F | 20 | RES | Reserved | 35 | RES | Reserved |
| 6 | RES | Reserved | 21 | DIRH | Sign / Direction H | 36 | GND | Digital Ground |
| 7 | AENE | Amplifier Enable E | 22 | AEC1 | Amp Enable Common 1 | 37 | AENF | Amplifier Enable F |
| 8 | AENH | Amplifier Enable H | 23 | AENG | Amplifier Enable G | 38 | AEC2 | Amp Enable Common 2 |
| 9 | N/C | No Connect | 24 | N/C | No Connect | 39 | GND | Digital Ground |
| 10 | -12V | -12V from Controller | 25 | +12V | +12V from Controller | 40 | MCME | Motor Command E |
| 11 | MCMF | Motor Command F | 26 | RES | Reserved | 41 | RES | Reserved |
| 12 | RES | Reserved | 27 | MCMG | Motor Command G | 42 | MCMH | Motor Command H |
| 13 | N/C | No Connect | 28 | RES | Reserved | 43 | GND | Digital Ground |
| 14 | N/C | No Connect | 29 | N/C | No Connect | 44 | N/C | No Connect |
| 15 | +5V | +5V from Controller | 30 | N/C | No Connect | | | |

Ratings

Voltage and current ratings are defined by the DMC-4000. Only DC voltages from 5V-24V will be present on this component. Review the Appendix in the DMC-4000 User Manual for details on all available I/O.

RoHS

Galil Motion Control, Inc. certifies that the ICS-48044-F meets the 2002/95/EC (RoHS) requirements.

Level 1: RoHS Compliance Certification

Galil Motion Control, Inc. states the above products and any of its homogenous materials, do not contain each of the 6 substances above the RoHS thresholds.

| | |
|---------------------|-----------|
| Lead | <1000 PPM |
| Mercury | <1000 PPM |
| Hexavalent Chromium | <1000 PPM |
| PBB | <1000 PPM |
| PBDE | <1000 PPM |
| Cadmium | < 100 PPM |

Dimensions

